

PATENT ABSTRACTS OF JAPAN

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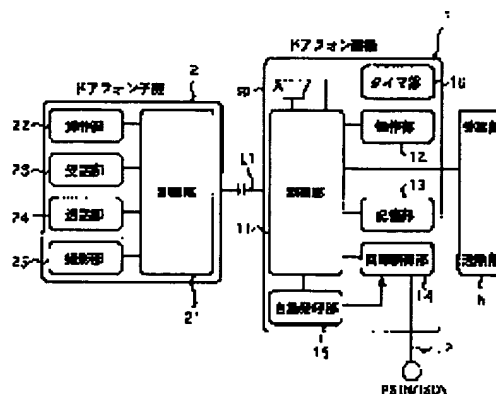
(54) DOORPHONE SYSTEM WITH COMMUNICATION FUNCTION

(57)Abstract:

PROBLEM TO BE SOLVED: To attain reply and speech at a transfer destination by arranging it so that a doorphone master is set to call the transfer destination registered in advance, when a call comes from a doorphone slave set during absence.

SOLUTION: A doorphone master set 1 is provided with a storage means 13 stored with a transfer destination in advance, an automatic dial means 15 that calls a transfer destination of the storage means 13 via a public network, an absence discrimination means, and a control means 11 that activates the automatic dial means 15 when a call arrives from a doorphone slave set 2 and the absence discrimination means discriminates absence.

As the transfer destination, a telephone numbers of visiting places such as one's office, and relatives or neighboring persons that can reply to a call in deputy is registered. Furthermore, the absence discrimination means discriminates the setting of a switch selects a presence mode into an absence mode and discriminates the switched absence mode by a tone signal or the like through a phone call at the visiting place.



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[Detailed Description of the Invention]

[0001]

[Field of the Invention] this invention -- the door phon under absence -- it is related with the door phon system with communication facility which enabled it to correspond at a going-out place to the call from a cordless handset.

[0002]

[Description of the Prior Art] the door phon installed in a space outside the front door etc. from the former -- if it answers with the door phon main phone installed in the dwelling unit when there is a call from a cordless handset -- a door phon -- the door phon system whose message is possible between a cordless handset and a door phon main phone has spread even through ordinary homes.

[0003]

[Problem(s) to be Solved by the Invention] However, since the response of the above-mentioned conventional door phon system was impossible when out [dwelling unit people], it might be unable to correspond to a caller and was inconvenient at the home with many opportunities to make it absence. Moreover, when not answered, the caller found that it was absence and there was a crime prevention top problem.

[0004] this invention is proposed in view of such a situation -- having -- under absence -- a door phon -- when there is a call from a cordless handset, as the destination which the door phon main phone registered beforehand is called, it aims at offering the door phon system with communication facility which could be made to perform a response and a message in the destination.

[0005]

[Means for Solving the Problem] the storage means with which the door phon main phone memorized the destination beforehand in the door phon system with communication facility according to claim 1 in order to attain the above-mentioned purpose, an automatic call origination means to call the destination of a storage means through a public network, an absent judging means, and a door phon -- there is a call from a cordless handset, and when it judges with his being absent with an absent judging means, it has the control means which operates an automatic call origination means.

[0006] What is necessary is just to register beforehand the telephone number of going-out places, such as office, the relative who does a telephone answering service, a neighboring man, etc. here in the destination. Moreover, an absent judging means judges a setup of the switch switched to a unattended mode from home mode at the time of going out, and also should just judge what was switched to the unattended mode with the tone signal etc. through the telephone of a going-out place.

[0007] a caller -- a door phon -- a cordless handset to a door phon main phone -- call appearance -- the bottom, if an absent setup is carried out to the door phon main phone, sometimes an automatic call origination means will operate and the telephone number of the destination registered beforehand will be called to it. on the other hand, the person who answered with the caller in the destination when the destination answered -- a door phon -- a message becomes possible using a cordless handset and communication terminal machines, such as telephone I can have the person who the caller could do correspondence and did the telephone answering service by this at the going-out place which is not a house hear the message. Furthermore, since it does not turn out to a sneak-thieving aim etc. that he is absent, a crime prevention top also becomes effective.

[0008] claim 2 -- a door phon -- the time of the cordless handset being equipped with the image photography means, and the control means of one door phon main phone operating an automatic call origination means -- a door phon -- it is characterized by taking a photograph by the image photography means of a cordless handset, and sending out the sent-out image to the destination. claim 3 -- the control means of a door phon main phone -- a door phon -- ringing tone is continued, singing is carried out and it is characterized by judging with an absent judging means being absent when the singing time amount of ringing tone becomes beyond predetermined time until it answers, when there is a call from a cordless handset. Though he forgets the change-over actuation to a unattended mode by this at the time of going out, since it switches to a unattended mode automatically, it is convenient.

[0009]

[Embodiment of the Invention] Below, the gestalt of operation of this invention is explained with a drawing. Drawing 1 is the block diagram showing an example of the door phon structure of a system with communication facility concerning this invention. this system -- a space outside the front door etc. - a door phon -- a cordless handset 2 is installed, the door phon main phone 1 is installed in a dwelling unit, and both are connected through a signal line L1. Moreover, the door phon main phone 1 connects a telephone network and a public network called ISDN through a communication line L2. Moreover, the connection with such a line wire may use the mobile communications used for the message of a cellular phone, a cordless telephone, etc.

[0010] In the illustrated door phon main phone 1, 11 constitutes the control means of this invention from a CPU etc. The control section which controls each part of a main phone 1, the control unit by which 12 was constituted from various switches, the storage section which 13 memorizes the telephone number of the destination beforehand and constitutes the storage means of this invention, and 14 -- a public network -- minding -- the telephone of the destination, and a door phon, in order to perform the message with a cordless handset 2 The line control section which performs change-over control of a line connection, and 15 are the automatic call origination means of this invention, and the automatic call origination section which calls automatically the destination memorized in the storage section 13, and 16 are the timer sections which clock predetermined time with directions of a control section 11. in addition, a door phon -- between cordless handsets 2, the message has become possible with the handset h equipped with the receiver section and the transmission section

[0011] one door phon -- in a cordless handset 2, it is the photography section which 21 consists of CPUs etc., and the control section which controls each part of a cordless handset 2, the control unit which operates 22 at the time of a call, the receiver section whose 23 is a microphone, the transmission section whose 24 is a loudspeaker, and 25 constitute the image photography means of this invention from a CCD camera etc., and photos an image outside the front door. In this invention, at the time of going out, the control unit 12 of the door phon main phone 1 is operated, and it switches to the unattended mode from staying-in-the-room mode. this condition -- a door phon -- by the control section 11, when there is a call from a cordless handset 2, since it is beforehand set as the unattended mode, with reference to the destination memorized by the storage section 13, the automatic call origination section 15 is operated and the destination is called. on the other hand -- if the telephone of the destination answers -- a door phon -- it comes to be able to perform a direct message between a cordless handset 2 and the destination

[0012] Therefore, a control unit 12 and a control section 11 will constitute the absent judging means of this invention here. In addition, a control section 11 may make this absent judging means the configuration which judges the switched mode by detecting the tone signal set up beforehand through a communication line L2. moreover -- when performing call origination to the destination, even if it carries out singing of the ringing tone (a buzzer and chime) above from Loudspeaker sp -- it is not necessary to make -- although -- the control section 11 of the door phon main phone 1 -- a door phon -- when there is a call from a cordless handset 2, ringing tone is continued and it may be made to carry out singing until it takes up a handset h and answers.

[0013] In this case, while not having been answered by it, when it operated, and the singing time amount of ringing tone becomes beyond predetermined time (for example, 30 seconds), it can judge that the timer section 16 is absent. In addition, it is contained also when repeating and carrying out multiple-times singing of the chime to the singing which ringing tone continued besides making a buzzer those without ** splendid. What is necessary is just to switch to a unattended mode automatically, when the count of singing becomes more than the count of predetermined at this time. thus -- if it carries out, ***** he forgets the switch actuation which is compared and is switched to a unattended mode at the time of going out -- a door phon -- the call from a cordless handset 2 will be transmitted to the destination.

[0014] moreover, the illustrated door phon -- since the cordless handset 2 is equipped with the photography section 25, the image photoed in this photography section 25 can be transmitted through a communication line L2. the time of a control section 11 judging a unattended mode and operating the automatic call origination section 15 in the door phon main phone 1, -- a door phon -- the image sent out

from the cordless handset 2 is sent out to the destination. In addition, sending out of this image may be performed from before the message of the destination, and after answering, you may go only during a message.

[0015] If this door phon system is a television door phon system which equipped the main phone 1 with the monitor TV (un-illustrating), it should just send out the video signal which was multiplexed with the sound signal and has been sent out through a communication line L2 through a signal line L1. In addition, what is necessary is to be the same method as a TV phone, to double voice and an image and just to send out through ISDN, at this time.

[0016] Next, basic actuation of this door phon system is explained using the flow chart which shows actuation of the door phon main phone 1 of drawing 2. a door phon -- when the control unit 22 of a cordless handset 2 is operated, the door phon main phone 1 detects this call, and carries out singing of the ringing tone (100,101). then -- if home mode or a unattended mode is judged, and a hand set h is taken up and it answers, when it is in home mode -- a door phon -- a message can be started between cordless handsets 2 (102,103).

[0017] On the other hand, at the time of a unattended mode, the automatic call origination section 15 is operated, and a call timer is set by the timer section 16 while reading and carrying out automatic call origination (dispatch) of the telephone number of the destination beforehand registered into the storage section 13 (104). if the telephone of the destination answers to a call -- a signal line L1 and a communication line L2 -- tying -- making -- a door phon -- the message by the cordless handset 2 and the destination is enabled, and a transfer timer is set to the timer section 16 (105,108). In addition, if the response of the destination at this time is a telephone network, the polarity reversals of a communication line L2 will detect it. On the other hand, when the telephone of the destination does not answer but a call timer goes through predetermined time (for example, 30 seconds) (time over), the call origination by the automatic call origination section 15 is suspended (106,107).

[0018] And if a message finishes and detection of a busy tone, detection of a cutting pulse, detection of a loop disconnection, etc. detect the disconnection from the destination in the case of a telephone network, a circuit will be cut to a main phone 1 side, and a message path with a cordless handset 2 will be severed (109,111). Moreover, when disconnection from the destination cannot be detected but a transfer timer goes through predetermined time (for example, 10 minutes) (time over), similarly a message path is severed (110,111). In addition, it has prevented this transfer timer being left with the message path connected [the monitor of the disconnection of step 109 prepared in order to cope with it, when it malfunctions, and] by this.

[0019] thus -- if going-out places, such as office, and people's telephone number which carries out a telephone answering service are beforehand registered into the destination in this invention -- a door phon -- if there is a call from a cordless handset 2, since automatic call origination of the telephone number of the registered destination will be carried out and the message with a cordless handset 2 and the destination will be enabled automatically, absence is applied to a **** dwelling unit etc. moreover, one old person who does not want to correspond to a caller since a message can be heard by the telephone answering service although it is at home -- it is applicable to a life dwelling unit etc. Furthermore, since it does not turn out to a sneak-thieving aim etc. that he is absent, a crime prevention top also becomes effective.

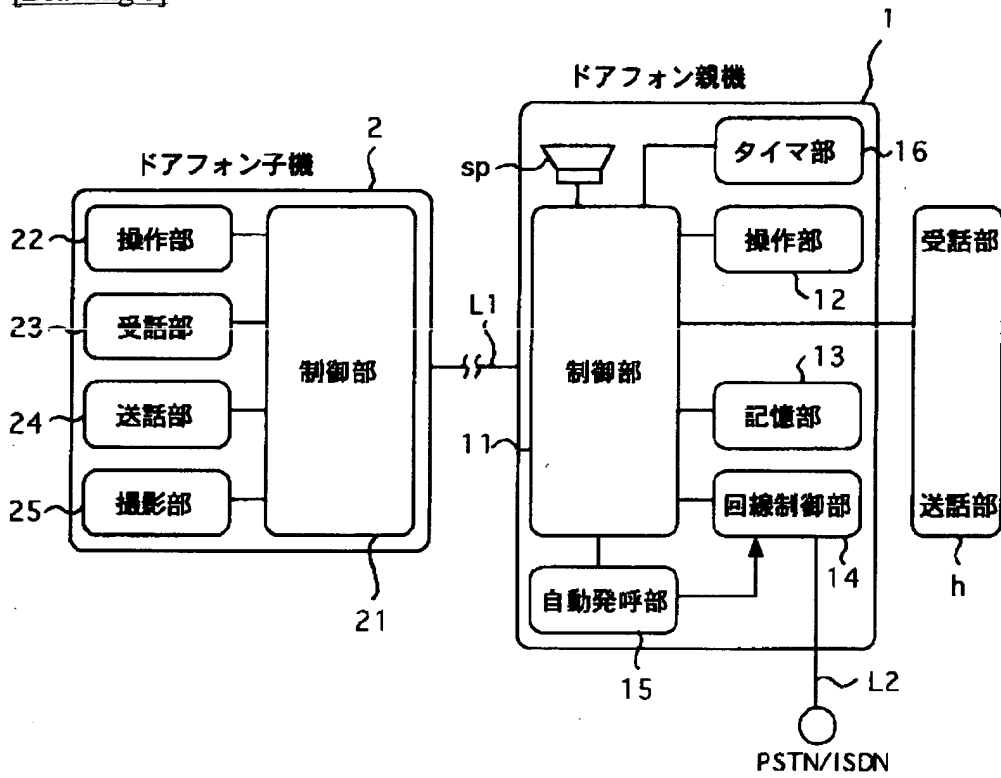
[0020]

[Effect of the Invention] if it remembers beforehand that I am understood by the destination from the above explanation to the door phon main phone in the door phon system with communication facility of this invention according to claim 1 -- a door phon -- if there is a call from a cordless handset -- the destination -- automatic call origination -- carrying out -- a door phon -- the message with a cordless handset and the destination is enabled. I can also have those who can be equivalent to a caller at a going-out place etc., and do a telephone answering service by this hear the message. Furthermore, since it does not turn out to a sneak-thieving aim etc. that he is absent, a crime prevention top also becomes effective.

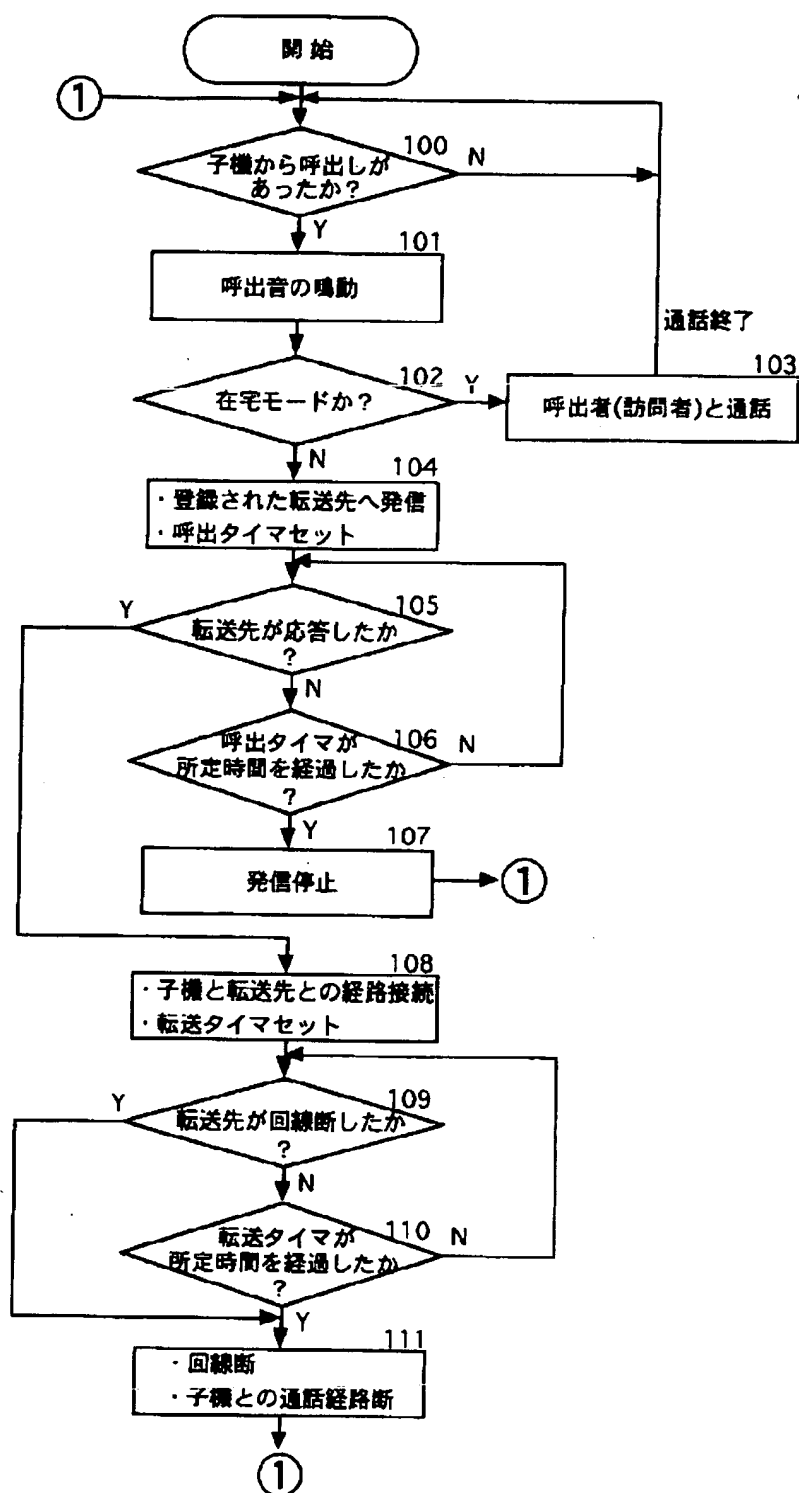
[0021] claim 2 -- a door phon main phone -- a door phon -- a cordless handset -- since the image photoed by the side is sent out to the destination, it can respond, catching a sight of a caller at a going-

out place. claim 3 -- a door phon main phone -- a door phon -- when the singing time amount becomes beyond predetermined time, there is a call from a cordless handset, continued and carried out singing of the ringing tone, and not answered, since he is absent, ***** he forgets the change-over actuation to a unattended mode at the time of going out -- automatic -- a unattended mode -- switching -- a door phon - - the destination can surely be called to the call from a cordless handset.

[Drawing 1]



[Drawing 2]



DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing an example of the door phon structure of a system with communication facility concerning this invention.

[Drawing 2] It is the flow chart which shows an example of actuation of a door phon main phone.

[Description of Notations]

1 ... The Doat John main phone

11 ... Control section

12 ... Control unit

13 ... Storage section

15 ... Automatic call origination section

h ... Hand set

2 ... a door phon -- a cordless handset

25 ... Photography section